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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,296	08/26/2003	Masahiro Kimura	59795 (47793)	5390

21874 7590 05/01/2006

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EXAMINER

PEYTON, TAMMARA R

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/649,296	Applicant(s) KIMURA ET AL.	
	Examiner Tammara R. Peyton	Art Unit 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed 2/14/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/14/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP-A-0802503 and EP-A-1079326, as cited as prior art 2/14/06.

As per claims 4, 5, 7-9, 11, 12, 14, and 16-18, EP-A-0802503 teaches a data transferring apparatus of liquid ejection data (col. 19, lines 28-29) comprising:

two independent buses which are a system bus (see data bus on Fig. 6) and a local bus; (see 'DATA' between 'BUFFER MEMORY' and 'DMA CONTROLLER' 40 on Fig. 6);

a local memory coupled to said local bus, capable of transferring data; (see 'BUFFER MEMORY' 18 Fig. 6); and

a decode unit comprising: a decode circuit coupled between said system bus and said local bus, capable of transferring data mutually and developing liquid ejection data compressed to be developed in line based on hardware; (see 'COMPRESSED DATA RESTORE PORTION' 37, Fig. 6)

a line buffer for storing liquid ejection data developed by said decode circuit per word unit; (see 'COMPRESSED DATA RESTORE PORTION', 37 on Fig. 6) and

a DMA-transferring (see 'DMA CONTROLLER', 40 on Fig. 6) means for DMA-transferring liquid ejection data compressed to be developed in line from said main memory to said decode circuit, DMA-transferring liquid ejection data developed in said line buffer to said local memory per word unit and DMA-transferring developed liquid ejection data stored in said local memory to a register of a liquid ejection head sequentially, (see 'FIRE DATA' on Fig. 6) and two sides of buffer areas are disclosed. (col. 9, lines 1-4 and 30-37, col. 14, lines 45-57)

However, EP-A-0802503 does not disclose a main memory coupled to said system bus capable of transferring data. Nonetheless, EP-A-1079326 teaches a main memory for storing compressed data (DRAM E2005, Fig. 9). It would have been obvious to one of ordinary skill at the time the invention was made to implement's EP-A-1079326 main memory in order to store the compressed data before said compressed data is transferred to the decode unit because doing so would expand the flexibility of EP-A-0802503's system.

As per claims 3 and 13, EP-A-0802503 teaches an ASIC portion 39, Fig. 6.

As per claims 6, 10 and 15, EP-A-0802503 teaches a run length compression, col. 14, lines 53.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammara Peyton whose telephone number is (571)

Art Unit: 2182

272-4157. The examiner can normally be reached between 6:30 - 4:00 from Monday to Thursday, (I am off every first Friday), and 6:30-3:00 every second Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Mailed responses to this action should be sent to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231.

Faxes for Official/formal (After Final) communications or for informal or draft communications (please label "PROPOSED" or "DRAFT") sent to:

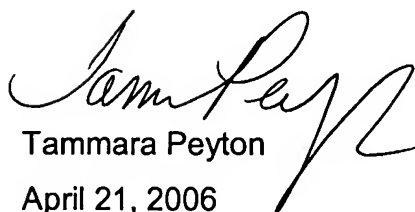
(571) 273-8300

Hand-delivered responses should be brought to:

USTPO, Randolph Building, Customer Service Window

401 Dulany Street

Alexandria, VA 22314.


Tammara Peyton
April 21, 2006

**TAMMARA PEYTON
PRIMARY EXAMINER**